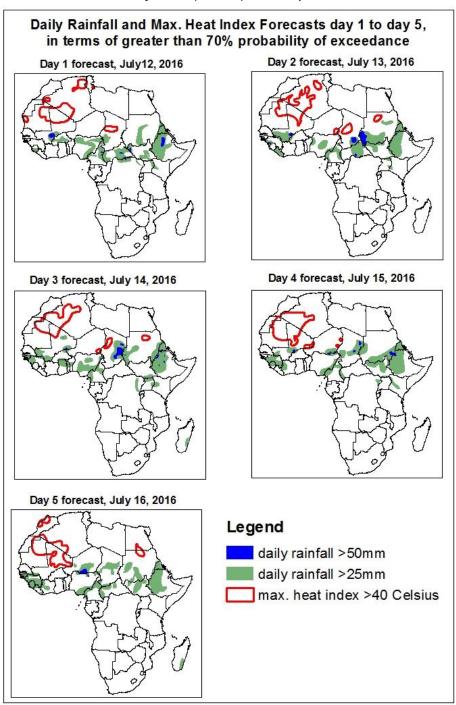
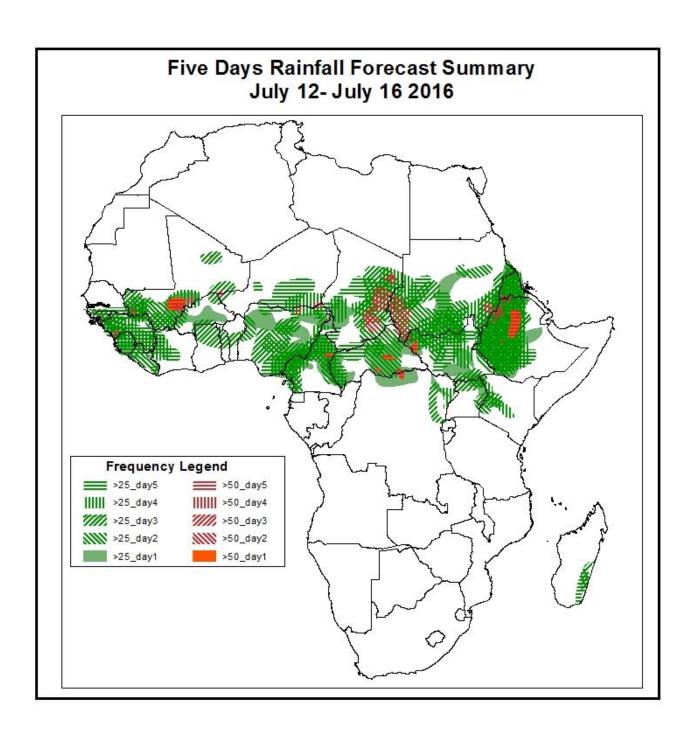
- 1. Rainfall, Heat Index and Dust Concentration Forecasts, (Issued on July 11, 2016)
- 1.1. Daily Rainfall and Maximum Heat Index Forecasts (valid: July 12– July 16 2016)

  The forecasts are expressed in terms of high probability of precipitation (POP) and high probability of maximum heat index, based on the NCEP/GFS, ECMWF and the NCEP Global Ensemble Forecasts System (GEFS) and expert assessment.



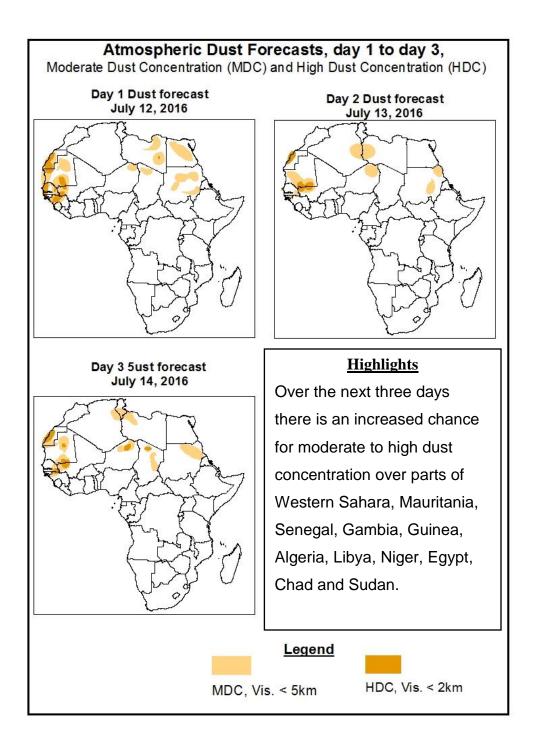


# **Highlights**

Over the next five days, onshore winds with their associated lower-level convergence are expected to enhance rainfall across the southwestern portion of Wes Africa. Lower-level wind convergences are also expected to enhance rainfall across the Central and eastern Sahel countries, and portions of the Greater Horn of Africa. Therefore, there is an increased chance for two or more days of moderate to heavy rainfall over portions of local areas of southern Senegal, Guinea, Sierra Leone, portions of Liberia and Mali, local areas of western Cote d'Ivoire, local area of western and Southern Burkina Faso, portions of Nigeria, Cameroon, Chad, CAR, Sudan, South Sudan and Uganda, western Kenya, Eritrea and Ethiopia.

## 1.2. Atmospheric Dust Concentration Forecasts (valid: July 12- July 16, 2016)

The forecasts are expressed in terms of high probability of dust concentration, based on the Navy Aerosol Analysis and Prediction System, NCEP/GFS lower-level wind forecasts and expert assessment.



#### 1.3. Model Discussion, Valid: July 12–July 13, 2016

The Azores high pressure system over the Northeast Atlantic is expected to maintain average central pressure value of 1024-hPa during the forecast period.

The St. Helena High pressure system over the Southeast Atlantic Ocean is expected to intensity, with its central pressure value increasing from 1023-hPa to 1025-hPa through 24 to 96 hours.

The Mascarene high pressure system over the Southwest Indian Ocean is to weaken, with its central pressure value decreasing from 1032-hPa to 1022h-Pa through 48 to 120 hours.

The 1016mb isobar, associated with the East African ridge is expected to remain near the latitudes of Ethiopia 24 to 48 hours and the latitudes of Kenya 78 to 120 hours. The anticyclonic ridge associated with the St. Helena high pressure system is expected to extend northwards across the Atlantic Ocean, with the 1016hPa isobar remaining near the Gulf of Guinea coast during the forecast period. This may help to maintain enhanced rainfall across portions of West Africa.

The pressure of core values associated with low heat in western Sahel should decrease gradually 1008-hPa 1003-hPa during the forecast period, while the expected low heat on the central Sahel to stay in the beach between 1004-hPa and 1008-hPa made 48 to120 hours. The central pressure value associated with the low heat across Sudan is expected to remain in the range of 1005-hPa and 1004-hPa through 24 to 96 hours.

At 925HPa level an anticyclonic circulation and its associated ridge is expected to prevail across Libya and the neighboring areas during the forecast period. Strong wind may lead to moderate to high dust concentration across portions of Western Sahara, Mauritania, Senegal, Gambia, Guinea, Algeria, Libya, Niger, Egypt, Chad and Sudan.

At 850hPa level, a strong zonal wind convergence is expected to prevail in the region between Mali and Sudan, while a dry northerly flow is expected to prevail across the western end of West Africa at 24 to 120 hours.

Over the next five days, onshore winds with their associated lower-level convergence are expected to enhance rainfall across the southwestern portion of Wes Africa. Lower-level wind convergences are also expected to enhance rainfall across the Central and eastern Sahel countries, and portions of the Greater Horn of Africa. Therefore, there is an increased chance for two or more days of moderate to heavy rainfall over portions of local areas of southern Senegal, Guinea, Sierra Leone, portions of Liberia and Mali, local areas of western Cote d'Ivoire, local area of western and Southern Burkina Faso, portions of Nigeria, Cameroon, Chad, CAR, Sudan, South Sudan and Uganda, western Kenya, Eritrea and Ethiopia.

There is an increased chance for maximum heat index to exceed 40°C over local areas of Western Sahara, Mauritania, Mali, Algeria, Tunisia, Niger, Chad and local areas of southern Egypt and northern Sudan.

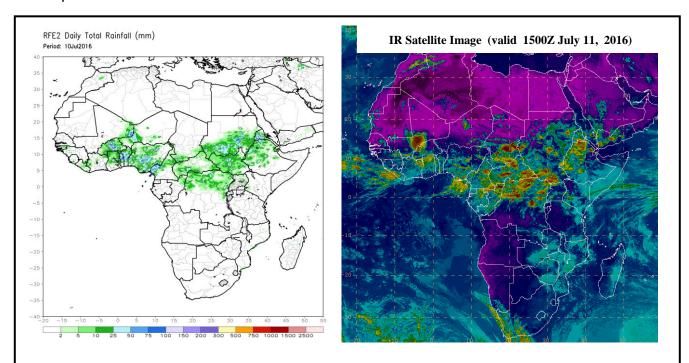
### 2.0. Previous and Current Day Weather over Africa

#### **2.1. Weather assessment for the previous day** (July 10, 2016)

Moderate to locally heavy rainfall was observed over portions of Guinea Bissau and Cote d'Ivoire, local areas of eastern Mali, Burkina Faso, portions of Ghana, Togo, Benin, Niger, Nigeria, Cameroon and CAR, southern Chad, portions of Sudan, South Sudan, Eritrea, portions of DRC and Ethiopia.

## 2.2. Weather assessment for the current day (July 11, 2016)

Intense convective clouds are observed over local areas of central Mali and northern Niger, portions of Nigeria, Chad, Cameroon, CAR, Congo, DRC, Sudan, South Sudan, Eretria and Ethiopia.



Previous day rainfall condition over Africa (Left) based on the NCEP CPCE/RFE and current day cloud cover (right) based on IR Satellite image.

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